

Appl. No. : 10/038,730
Filed : January 2, 2002

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1-31. CANCELED

32. (CURRENTLY AMENDED) A system for forming a biologically active anatomical occlusion in an anatomical cavity, comprising:

a) a vaso-occlusive precursor composition comprising a polymer-forming, or dissolved polymeric, biodegradable material ~~and a biologically active component~~, wherein said polymer-forming or dissolved polymeric, biodegradable material is present in an amount of about 5 to 50% by weight in a pharmaceutically acceptable solvent system based on the overall content of the composition; and

b) a biologically active component, present along with the polymer-forming, or dissolved polymeric, biodegradable material in the pharmaceutically acceptable solvent; and

~~b) c)~~ a mechanical occlusive device;

wherein said system forms a biologically active, polymeric occlusion mass when introduced into an anatomical cavity; and wherein the polymer has a molecular weight (MW_w) of at least 10,000 and less than about 500,000.

33. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the polymer has a molecular weight of at least about 50,000 and less than about 100,000.

34. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the polymer is a biodegradable polyester.

35. (PREVIOUSLY PRESENTED) The system of claim 34, wherein the biodegradable polyester is selected from the group consisting of polyglycolic acids, polylactic acids, polycaprolactones, and their copolymers.

36. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the polymer is selected from the group consisting of polyhydroxybutyrate, polyhydroxyvalerate and their copolymers.

37. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the polymer is a copolymer of trimethylene and a polyanhydride.

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38. (PREVIOUSLY PRESENTED) The system of claim 32, further comprising a water-soluble solvent.

39. (PREVIOUSLY PRESENTED) The system of claim 38, wherein the solvent is a mixture of ethanol and water.

40. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the biologically active component has the effect of increasing cell attachment or thrombogenicity.

41. (PREVIOUSLY PRESENTED) The system of claim 40, wherein the biologically active component is selected from the group consisting of collagen, fibrinogen, vitronectin, other plasma proteins, growth factors, synthetic peptides of these and other proteins having ROD (arginine-glycine-aspartic acid) residues at one or both termini, other cell adhesion peptides, GRGDY, oligonucleotides, full or partial DNA constructs, natural or synthetic phospholipids, or polymers with phosphorylcholine functionality.

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43. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the biologically active component is selected from the group consisting of fibronectin, laminin, bitronectin, hyaluronic acid, silk-elastin, elastin, fibrinogen, and other basement membrane proteins.

44. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the biologically active component is pharmaceutically active and is selected from the group consisting of compounds, proteins, oligonucleotides, ribozymes, anti-sense genes, DSN compacting agents, gene/vector systems, nucleic acids, and viral, liposomes and cationic polymers.

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46. (PREVIOUSLY PRESENTED) The system of claim 32, wherein the biologically active component is selected from the group consisting of therapeutic polypeptides or proteins, and DNA encoding therapeutic polypeptides and proteins.

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53. (PREVIOUSLY PRESENTED) A biologically active occlusion mass formed using the system of claim 32.

54. (PREVIOUSLY PRESENTED) A procedure for at least partially filling an anatomical cavity comprising the steps of:

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- a) introducing the system of claim 32 into said cavity; and
- b) forming a biologically active occlusive mass in the cavity.

55. (PREVIOUSLY PRESENTED) The procedure of claim 54, wherein the mechanical occlusive device of claim 32 is first introduced into the anatomical cavity by means of a catheter followed by introduction of a bolus of The polymer-forming or dissolved polymeric, biodegradable material Into the anatomical cavity, the bolus being Introduced by means of the same or a different catheter, and once the mass is formed, the catheter Is removed.

56. (PREVIOUSLY PRESENTED) The procedure of claim 55, wherein prior to and during injection into the anatomical cavity, the bolus of polymer-forming or dissolved polymeric, biodegradable material is separated from any blood that may have refluxed into the distal end of the catheter by a plug of barrier solvent suitable for such separation.

57. (PREVIOUSLY PRESENTED) The procedure of claim 56, wherein the barrier solvent is a 20 - 30% aqueous ethanol solution.

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59. (PREVIOUSLY PRESENTED) A kit for at least partially filling an anatomical cavity comprising:

- a) the system of claim 32; and,
- b) one or more suitable catheters for delivery of the polymer-forming, or dissolved polymeric, biodegradable material, the biologically active compound and the mechanical occlusive device into the anatomical cavity.

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